

REMARKS

Claims 1-32 are pending in this application and have been rejected. Applicants respectfully request reconsideration of the claims in view of the following remarks. The title is amended herein.

The Examiner has objected to the previous title, "CMOS Structure and Related Method", as not descriptive, and has required a new title indicative of the invention to which the claims are directed. A new title "Method and Structure for CMOS Devices with Stress Relaxed by Ion Implantation of Carbon or Oxygen Containing Ions" is provided by amendments herein in response to the Examiner's remarks and to overcome the Examiner's objection. Entry of these amendments and reconsideration and withdrawal of the objection is requested.

The Examiner rejected Claims 1-32 under 35 U.S.C. 102(e) as anticipated by Shimizu, et al., (U.S. Patent Application 2004/00293323 A1). This rejection is hereby respectfully traversed.

This rejection was maintained from the previous action. Applicants respectfully submit that the Shimizu, et al. reference cannot meet the requirements of an anticipating reference under 35 U.S.C. 102(e).

In the remarks, the Examiner asserted that with respect to Claims 1 and 14 that the Shimizu, et al. reference discloses a "similar" device and method. With respect to the claim element requiring that ions be implanted, the Examiner recites the general language in the Shimizu, et al. reference that "any ions are usable".

Claim 1 specifically recites:

A CMOS structure having a silicon nitride layer in which stress is relaxed by implantation therein of oxygen-containing or carbon-containing ions.

The background of the instant application provides that it is known to relax the stress in a silicon nitride layer by implanting Ge ions. (Paragraph 7). Applicants submit that the Shimizu, et al. reference is merely cumulative to the prior art described in the background. Applicants further submit that the Shimizu reference cannot anticipate the required elements of implanting "carbon or oxygen containing ions" because the reference does not show, teach or suggest the particular ion implantation as claimed and disclosed by Applicants. Simply put, Shimizu, et al. never describes oxygen or carbon containing ions.

The standard for anticipation under 35 U.S.C. 102 has been addressed repeatedly by the Court of Appeals for the Federal Circuit and it is well settled law that to anticipate, every element of a claimed invention must be found in a single prior art reference, *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383 (Fed.Cir. 997), the reference must disclose "every limitation of the claimed invention" *Mehl/Biphile International Corp. v. Milgraum*, 192 F.3d 1362, 1365, 52 USPQ2d 1303, 1306 (Fed.Cir.1999). This standard applies to patentability of an application as well as defense to an infringement suit, an "anticipation rejection requires a showing that each limitation of a claim must be found in single reference, practice or device.", *In re Donohue*, 766 F.2d 531, 534, 226 USPQ 612, 621 (Fed. Cir. 1985). A reference which fails to provide each claimed element does not anticipate, as stated by the court in *RCA Corp. v. Applied Digital Data Sys., Inc.*, "exclusion of a claimed element from a prior art reference is enough to negate anticipation" 730 F. 2d, 1440, 1444, 221 USPQ 385, 288 (Fed. Cir. 1984). This standard is also recited in the MPEP at § 706.02, paragraph IV, "...for anticipation under 35 U.S.C 102, (the) reference must teach every aspect of the claimed invention either explicitly or impliedly."

Shimizu, et al. does not show, teach or suggest the use of carbon or oxygen containing ions. The ions suggested by Shimizu, et al. are, like the Ge ions described in Applicants'

background section, dopant ions in the semiconductor art, see paragraph 106 where Shimizu, et al. teaches impurity ions Ar, Ge, Si, As, Sb, In, BF₂, "or the like". However, there is no teaching of the claimed oxygen or carbon containing ions as required by Applicants' claims and, therefore, the relied upon reference does not anticipate the claimed invention under §102. Accordingly, Applicants believe that Claim 1 is not anticipated by and is patentable over the reference. Reconsideration and allowance are requested.

Claims 2-7 depend from and include the patentable limitations of Claim 1, and are also therefore allowable. Reconsideration and allowance is therefore requested.

Claim 8 again recites the oxygen or carbon containing ions as in Claim 1, and is, therefore, not anticipated by the Shimizu reference. Claim 8 further recites a contact etch stop layer that the Examiner admits is not shown or taught by the reference. Accordingly the elements of Claim 8 are not shown, taught or suggested in the relied upon reference and are not anticipated under 35 U.S.C §102. Reconsideration and allowance are requested.

Claims 9-13 depend from and include the patentable limitations of Claim 8, and are also therefore believed to be allowable. Reconsideration and allowance is therefore requested.

Claim 14 is a method claim that recites method steps for forming the structure of Claim 1 and also requires "implanting oxygen-containing or carbon containing ions into the layer". Shimizu, et al. does not show teach or suggest the implantation of oxygen or carbon containing ions. Claim 14 is also not anticipated by the reference and is allowable for the reasons given above with respect to Claim 1. Accordingly, reconsideration and allowance is requested.

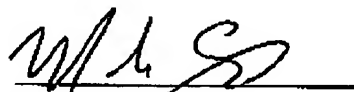
Claims 15-24 depend from, incorporate the steps of and add additional method steps to Claim 14. These dependent claims are also believed to be allowable. Reconsideration and allowance is requested for these claims.

Claim 25 is a method claim that recites steps for forming the structure of Claim 8 and recites "implanting oxygen containing or carbon containing ion into the layer" and is also therefore not disclosed in nor anticipated by the Shimizu, et al. reference and is allowable for the reasons given above with respect to Claim 1. Accordingly reconsideration and allowance is requested.

Claims 26-32 depend from and incorporate the steps of and add additional method steps to Claim 25. These dependent claims are also believed to be allowable. Reconsideration and allowance is requested for these claims.

The remarks herein are believed to be fully responsive to the Examiner's Action and to place the claims in condition for allowance. Applicants request the case be allowed and passed to issue. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Mark E. Courtney, Applicants' attorney, at 972-732-1001 so that such issues may be resolved as expeditiously as possible. No fee is believed due in connection with this filing. However, should one be deemed due, the Commissioner is hereby authorized to charge Deposit Account No. 50-1065.

May 25, 2005



Mark Courtney
Reg. No. 36,491
Attorney for Applicants

Slater & Matsil, L.L.P.
17950 Preston Rd., Suite 1000
Dallas, TX 75252
Tel: 972-732-1001
Fax: 972-732-9218